

**AR48**

## **65th Annual Report 1970**





**Cover**

Pinchi Lake Mine – illustrating a new type of underground trackless mining which is becoming increasingly prevalent in Company mines.

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Cominco Ltd.

Report of the  
64th Annual Meeting  
of Shareholders  
Montreal, Quebec  
23rd April, 1970



## **Cominco Ltd.**

Following is a brief report prepared for the benefit of shareholders who were unable to attend the 64th Annual General Meeting of Shareholders held at Montreal on the 23rd April, 1970.

The meeting convened at noon at the Head Office of the Company, 31st Floor, 630 Dorchester Boulevard West, Montreal.

Mr. W. S. Kirkpatrick, Chairman of the Company, presided and the Secretary of the Company acted as Secretary of the meeting.

The Notice calling the meeting having been read by the Secretary, the Chairman stated that proxies had been received for 13,044,984 shares, representing 78% of the issued stock, and as there was a quorum present in person he declared the meeting regularly called and properly constituted for the transaction of business.

A summary of the minutes of the last Annual General Meeting having been mailed to all shareholders, reading of the minutes of the previous meeting was dispensed with.

A statement was tabled of purchases and sales during the past year of the shares or other securities of the Company or of its subsidiaries by Directors or officers or any shareholder controlling more than 10% of the issued shares of the Company.

The Directors' Report and the consolidated financial statements of the Company and its consolidated subsidiaries for the year ended 31st December, 1969 as mailed to all shareholders, was tabled in accordance with the Canada Corporations Act.

The President and Chief Executive Officer addressed the meeting on the affairs of the Company.

Before proceeding with the election of Directors, the Chairman informed the meeting that Mr. George H. Baillie and Mr. Ralph D. Perry were not standing for re-election. On behalf of the Directors and officers of the Company, he expressed their deep appreciation of the many valuable contributions the two retiring Directors have made in the deliberations of the Board and to the general progress and welfare of the Company.

The following shareholders were then elected Directors of the Company for a term of two years:

F. S. Burbidge  
G. A. Hart  
W. S. Kirkpatrick  
D. D. Morris  
S. E. Nixon  
Hon. Duff Roblin, P.C.  
Hon. James Sinclair, P.C.

Messrs. Thorne, Gunn, Helliwell & Christenson, Chartered Accountants of Vancouver, B.C., were appointed auditors for the ensuing year.

The Directors were authorized by the meeting to fix the remuneration of the auditors.

The Chairman invited questions relating to the Company or to the President's address. Discussion followed.

On motion, the meeting terminated.

At a meeting of the Board of Directors held immediately following the shareholders' meeting, Mr. W. S. Kirkpatrick was elected Chairman of the Company, Mr. R. Hendricks, President and Chief Executive Officer, Mr. I. D. Sinclair, Vice-President and Mr. D. D. Morris, Executive Vice-President.

The following were elected as the Executive Committee for the ensuing year:

W. J. Bennett  
N. R. Crump  
R. Hendricks  
W. S. Kirkpatrick  
D. R. McMaster, Q.C.  
D. D. Morris  
I. D. Sinclair

The Board confirmed the change in title of Mr. A. M. Murray from Vice-President, Finance and Treasurer to Vice-President, Finance and appointed Mr. D. L. Hiebert as Treasurer.

**Address to the Shareholders  
at the  
Annual Meeting, Montreal  
April 23rd, 1970  
by R. Hendricks  
President and  
Chief Executive Officer**

**MAY 26 1970**

Copies of the 64th Annual Report of the Directors of the Company covering the results for the past year were mailed to all shareholders on the 30th March, and have also been made available to all present at this meeting.

As set out in the Annual Report, total revenue in 1969 from sales of products and other sources showed an increase of 4%, reaching a new all-time high of \$256 million. Net earnings were lower by 8% at \$32 million.

In dealing with metals in my address to the shareholders last year, I referred to the expanded production facilities for refined zinc in various parts of the world. World markets appear to have satisfactorily absorbed most of the additional tonnage produced in 1969, and inventories have remained at acceptable and workable levels.

Stocks of zinc in the hands of producers have, however, begun to increase in the United States. As a result several large producers in that country have recently announced production decreases. This should keep zinc supplies in the United States in close balance with demand. The recognition by producers that the market may not permit them to operate at full capacity at all times will, I believe, create a healthy situation and augurs well for future stability in the industry. We are watching the situation very closely, and will take the necessary action to meet circumstances as they develop.

Prices for both lead and zinc rose progressively during 1969 to levels substantially above those of 1968. At the year end, lead was 16.5¢ per pound and zinc 15.5¢ per pound in the United States. These levels were last reached in 1956 for lead and in

1952 for zinc. Prices for both metals have remained unchanged for the first quarter of 1970, and we expect that they will remain at about this level for the balance of the year. Sales revenue from metal products increased by 12.8% over the previous year. This reflects the continued successful marketing of our metals and the higher volume of production.

The output of 225,000 tons of zinc at our Trail plants in 1969 established a new record. The production of 196,000 tons of refined lead was only slightly below the previous year's rate. Sales of lead and zinc concentrates, at 331,000 tons, established a new record. The markets for most of the Company's other metals, such as cadmium, bismuth and indium were strong and are predicted to remain satisfactory through 1970.

Silver prices fell off somewhat in 1969, but have now recovered to approximately \$2.00 per ounce. They are expected to remain at about this level for the rest of the year. The Pinchi Lake mercury mine in British Columbia is operating smoothly and indications are that mercury prices will remain stable at about the present level of \$500 per flask. This operation is contributing satisfactorily to earnings.

Turning now to the chemical and fertilizer side of our business, the fertilizer industry in general continues to suffer from substantial over-capacity and over-supply. This situation has resulted in seriously depressed fertilizer prices, particularly in Western Canada. The announced Federal Government program for reducing wheat production could aggravate the situation temporarily. If it succeeds, it should, in the long term, lower wheat inventories and acceler-



ate a return to more normal fertilizer use. In the meantime, plants in this market area, both those of Cominco and of our competitors, are operating at reduced rates, and some competitors' plants have had to suspend operation.

In our case, fertilizer production at Trail and Kimberley must be maintained at levels dictated by operating rates of the metallurgical plants there. For this reason we occupy a unique position in this competitive industry. We entered the fertilizer business in the 1930's as part of a direct and planned integration with our metallurgical operations to overcome a sulphur pollution problem and to achieve proper environmental control. This fundamental requirement still exists and remains the basic criterion of our production schedule. While the depressed farm market continues, we propose to maintain a holding position. We do not intend to invest further capital in this business, except where it can be justified by the reduction of costs and maximization of earnings from essential operations.

In the United States there are some indications of minor price improvements for fertilizers. However, in spite of this, we do not expect any material change in the fertilizer situation for the balance of 1970, nor do we anticipate any significant contribution to profits from this sector of our business.

As already referred to in the Annual Report, 1969 was a difficult year for our new potash operation. Since the end of the year, progress has been made towards eliminating start-up difficulties, and at this time improved results are being achieved. Prices in the United States and elsewhere appear to be responding to the initiative taken by the Saskatchewan Government in establishing floor prices and pro-rationing production schedules. This is expected to result eventually in a firming of the export market. It will take time for the full effect of these new factors to be felt. In the meantime, because there have been practically no sales in off-shore markets for Canadian production, inventories at all Canadian plants are climbing and are becoming a problem. While our potash operation is expected to show a loss in 1970, the loss should be less than in 1969.

On the other hand, sales of industrial chemicals are showing encouraging growth, and production is being increased in an

orderly manner as markets dictate. Returns from the sale of these products, although still relatively small, are making a satisfactory contribution to earnings.

As part of our overall marketing plan, we are consolidating our chemical and fertilizer sales function at Calgary, Alberta, which is ideally located in the centre of our Canadian market area.

Collective agreements covering employees in the Company's principal operations in British Columbia are now being negotiated with the United Steel Workers of America. Preliminary discussions have been held, and it is evident that substantial demands will be made.

Pine Point Mines Limited reported net earnings of \$6,371,000, or \$1.41 per share for the period January 1st to March 31st, 1970, up sharply from \$3,839,000, or 85¢ per share in 1969. At the recent directors' meeting following the annual meeting of that company, an extra dividend of \$3.00 per share was declared. It is expected that the tonnage of metal mined and treated by this company in 1970 will be approximately the same as in 1969. In addition, the mine will ship in the order of 100,000 tons of high grade ore from the original Pine Point mine. This ore will be subject to normal tax rates.

Although the Fording Coal property in Southeastern British Columbia is still in the early stages of development, construction and pre-production programs are on schedule and good progress is being made in all areas.

Valley Copper reports that work done during 1969 tends to confirm the potential of this property at 600,000 tons per vertical foot to a depth of 500 feet, with deeper drilling indicating that the mineralization extends well below 1,000 feet. Results also confirm an average estimated grade of 0.46% copper. The feasibility study being prepared by an independent firm is nearing completion, and is now expected by June of this year.

Because of the heavy capital requirements for a project of this size, it is essential that firm contracts for the sale of the output be negotiated before financing can be arranged. The British Columbia Government passed legislation last month which provides, among other things, that 50% of the output of any mine in the province may be diverted by Government edict to a British Columbia smelter.

No copper smelter presently exists in B.C., although the Company is actively studying the feasibility of building a suitable facility. In fact, Cominco has spent several hundred thousand dollars on these studies. Indications are that a viable smelter based on conventional pyrometallurgical processes cannot be built because of environmental problems. It will take some time to develop a suitable hydrometallurgical pollution-free process but work to date is encouraging. In the meantime, negotiations for the capital financing and for the sale of the copper concentrates are dependent upon satisfactory assurances being obtained that the legislation will not prevent Valley Copper from meeting its commitments. Pending receipt of such assurances, we are continuing active sales contract discussions.

In the Annual Report reference was made to the Anaconda Caribou copper property in New Brunswick. Construction of the concentrator is on schedule, and it is expected that production will commence during the fourth quarter of 1970. Cominco holds a 25% interest in this project, with The Anaconda Company holding the balance. Marketing arrangements for the concentrates have already been made.

During the first quarter of 1970 performance of Cominco American's Magmont mine in Missouri, in which we have a 50% interest, has been most satisfactory. Grades are running significantly above target, and it is anticipated that the mine's contribution to earnings in 1970 will be appreciably above that of 1969.

Our mining exploration during the past year in Spain has shown encouraging results. Work at the Rubiales property in Northwestern Spain indicates the presence of a substantial medium grade lead-zinc deposit. Plans for 1970 include acceleration of an underground exploration program to establish more precise data.

This property is located in a populated area with adequate labour resources, and is well situated with regard to potential markets. If the present program confirms preliminary results and continues on schedule, production could be expected about 1975.

The Company continues to maintain its 9% interest in Panarctic Oils Limited. Based on the results of the past year's activity, the indications for the future seem

favourable, and 1970 could be an important year in determining the potentials of this very extensive oil and gas prospect in Canada's Arctic region.

A great deal of publicity has been given in recent weeks in the technical and popular press to the subject of lead in gasoline. It is important that you, our shareholders, the public and more particularly, governments should understand the true facts to avoid hasty action which would prove to be contrary to the public interest. Before summarizing the scientific knowledge now available, I would like to make two points insofar as the Company is concerned. First, about 25% of the lead production from our Trail refinery, representing 5.5% of our total revenue from metals, is now sold to tetraethyl lead manufacturers. Second, we are cooperating actively with the lead industry and with various government and public health organizations in establishing the true facts of this very important subject.

Basically, the objectionable components in automobile exhaust gases are the unburned hydrocarbons, carbon monoxide, nitrogen oxides and particulates. Lead falls in this last category. In considering the subject of lead in the atmosphere the World Health Organization of the United Nations, reviewing the situation in some sixteen different countries reports: "There has been no increase in lead contamination in the last two decades. If there has been any change it would appear that at present man is exposed on the whole to less lead in his environment than he was 20 years ago." It is interesting to note in this connection that lead levels reported in the blood of New Guinea aborigines are higher in range than those in urban and rural Californians. A U.S. Surgeon General's committee initiated an extensive industry-government investigation in 1961 into lead in air concentrations in three major cities, Philadelphia, Cincinnati and Los Angeles. These studies show that atmospheric lead levels were on the average generally low and that the lead body burden of the population, including traffic policemen, downtown postmen, taxi drivers, etc. was within the levels generally considered normal.

The foregoing together with numerous other authoritative and comprehensive scientific data which could be presented indicate that lead, per se, is not a contam-



inant in the atmosphere, nor a hazard to health even of our most industrialized cities. The basic problem is that the catalytic systems which are being proposed by some automotive manufacturers for the elimination of the atmospheric contaminants are adversely affected by the presence of lead. The elimination of lead from gasoline would therefore allegedly facilitate the removal of exhaust pollution by this particular method. But this is not the only method, and there is evidence that it is not by any means the best method. I doubt that the public realizes that the elimination of lead from gasoline would involve from \$3-6 billion in capital expenditures for refining facilities and the addition of auxiliary service station equipment in the U.S. alone. This would raise the cost of gasoline by 3 to 5 cents per gallon, and would certainly be an unpalatable change in itself. However, a much more serious question remains unanswered.

If the lead is to be removed from gasoline, an increase in the level of aromatics is inevitable. In automobile exhausts, certain of these aromatics are known to produce higher levels of carcinogens or cancer-forming materials than do normal leaded fuels.

Dr. Herbert C. McKee, Chairman of the Texas Air Control Board has reported that: "An increase in the aromatic content of fuel inevitably leads to an increase in the poly-nuclear content of the exhaust. The exact role of poly-nuclear aromatic content in causing cancer is not known and may not be completely understood for years. However, they do induce tumor formation in experimental animals which at least points a finger of suspicion at these catalysts as hazards to human health... New control measures which would cause a considerable increase in the poly-nuclear aromatic content of the atmosphere should be viewed with suspicion". It seems quite possible, therefore, that the removal of lead might well introduce a hazard about which we have little information. Thus in attempting to eliminate an element with which we have lived with insignificant, if any, adverse effect for 40-50 years, we might inadvertently create a serious health hazard.

Du Pont, Ethyl Corporation and Mobil Oil, together with other companies, have carried on extensive work on alternative systems for eliminating atmospheric pollu-

tion which do not require removal of lead from gasoline.

Such alternative systems, now in existence, already meet the proposed 1980 U.S. standards for all pollutants except nitrogen oxides. There is every indication that this standard will also be met long before the 1980 deadline. The obvious advantages of such systems which avoid the very high conversion cost required for lead removal and retain the important advantages of lead in gasoline make them most attractive. It may well be that some such approach will be the ultimate answer to the present recognized problem of atmospheric pollution from the internal combustion engine.

If, however, Governments decide to legislate the removal of lead from gasoline, it is reasonable to assume that the elimination would take place in an orderly manner and over a relatively extended period. It has been suggested that it might take 10 years for the complete changeover in the United States.

During that time current normal growth in alternative uses of lead, as in storage batteries, acoustical applications and other products, is expected to more than compensate for any reduction in sales resulting from the swing away from tetraethyl lead. Although the potential loss of this market for Cominco's refined lead would slow our market growth in this field, we do not anticipate any seriously adverse effect upon our present profit capabilities.

A broad range of research programs in the development and expansion of new uses for lead and zinc is underway at our Product Research Centre in Sheridan Park near Toronto. These include: zinc forgings; DECRALLOY, a decorative coating for steel; zinc extrusions; SHEALD, a use of lead for acoustical control; and continuously cast battery grids. A new Metal Product Sales organization has been established with its own production facilities in Oakville, Ontario, to promote the sale of these products.

Production and sale of ultra high purity metals grew significantly in 1969, and are expected to develop further in the coming year. To promote this growth, new facilities are being established at Trail, particularly designed for the production of very high purity arsenic.

During recent years, the Company has become increasingly involved in countries bordering the Pacific. The very rapid devel-



opment of the Pacific Rim economy is of considerable importance to Cominco.

We already hold a major interest in a zinc smelter in Southern India and in a lead smelter in Japan. We are heavily involved with Japanese companies in connection with coal contracts, potash sales and with negotiations regarding the Valley Copper property. The rapid growth of the Japanese economy, predicted to reach half the present size of the United States by 1975, obviously has significant long range implications for Canada and for the Company. Australia is another country where diversification for the Company could result. Our exploration teams have been working there for some time, examining in particular potentially attractive nickel resources. Australia offers interesting opportunities for investment, and may prove to be an important element in Cominco's planned involvement in the Pacific Rim. It is our intention that the Company be geared to take advantage of developments in this area.

Because of our involvement in Western Canada and this trend towards the Pacific, an initial step taken in 1968 to consolidate our various offices in Vancouver in one building known as "The Cominco Building", was followed early this year by a decision to transfer our chief operating offices from Montreal to Vancouver. This move will shorten our lines of communication and develop a closer working liaison with our existing Western interests. These include our Cominco American Incorporated headquarters in Spokane, Washington, our potential new projects in British Columbia, and the whole Pacific Rim region.

Much has been said about the effect of the White Paper on the economy of Canada, and that of the mining industry in particular. The topic has been the subject of wide publicity and heated debate, and I consider it unnecessary for me to dwell upon the details at this time. However, our shareholders should realize that if the proposals as they affect the mining industry were adopted in their present form, the tax paid by Cominco's mining and metallurgical operations would be increased by 33½% to an effective tax rate of 56%.

The mining industry would become the highest taxed industry in Canada. Furthermore, the Canadian mining industry would become the highest taxed mining industry

in any industrial country in the world. To illustrate, a new copper mine in British Columbia would pay an effective tax rate of about 54%. A similar mine in the United States would pay only 32% under new tax regulations there. In Australia, the same mine, located in the New Guinea Protectorate, where one exists now, would pay an effective rate of 33%.

Mining is an international and highly competitive business, and it is obvious that there exists an element of competition between Governments in seeking to attract the risk capital required to find and develop the mineral resources within their boundaries. Quite aside from a change in tax laws, the situation in Canada is becoming less attractive from the exploration point of view because costs are rising, the obvious deposits have already been found, and the search today requires increasing expenditures of time and money. As a result, mining companies are tending to spend less of their exploration budgets in Canada.

This change reflects the world wide nature of the search, which dictates that funds for exploration and development will go where conditions are considered most attractive. If the proposed provisions contained in the White Paper are implemented, this tendency would inevitably be accelerated. Exploration funds which might otherwise be spent in Canada would be diverted to those countries with comparable geological conditions, stable political climates and more favourable tax laws.

It is truly incredible that Canada, a country long held up as an example to others for its intelligent fiscal encouragement of its mining industry, would even consider the removal of the kind of incentives which have been responsible for building this industry into not only one of the world's largest but also into one of the most important elements in the national economy. I question whether the Federal Government appreciates the seriousness of its proposed action, and the burden of responsibility it will be called upon to assume if these proposals do in fact become law.

We are doing everything in our power to convince the Government that the proposals in the White Paper as they affect the mining industry should not be implemented in their present form and we will shortly be presenting workable alternatives

in briefs to the appropriate Government committees.

Unaudited results for the first quarter of 1970 show total revenue of \$67.5 million and net earnings of \$8.9 million, compared with \$55.3 million in revenue and \$5.1 million in earnings for the same period in 1969.

This substantial improvement in revenue and earnings is primarily the result of the

higher price of metals, as compared to the average for the same period last year. Because of the many problems created by the current economic and industrial uncertainties now facing the country, 1970 is an unusually difficult year for which to make a forecast. However, we do expect that earnings will be at about the same level as in 1969.

**Interim Consolidated Statement of Earnings**  
(Subject to year-end audit)

	Three months ended	
	March 31, 1970	March 31, 1969
Sales of products	\$66,200,000	\$53,700,000
Other revenue	1,300,000	1,600,000
	<hr/>	<hr/>
	\$67,500,000	\$55,300,000
Earnings before the following items	\$20,000,000	\$14,900,000
<i>Add:</i>		
Income from investments	800,000	1,000,000
	<hr/>	<hr/>
	20,800,000	15,900,000
<i>Deduct:</i>		
Depreciation and depletion	6,900,000	6,400,000
Income taxes	3,700,000	4,000,000
Minority interest in net earnings of Pine Point	1,500,000	1,100,000
	<hr/>	<hr/>
Earnings before extraordinary items (per share \$0.52; 1969 \$0.26)	8,700,000	4,400,000
Extraordinary items	200,000	700,000
	<hr/>	<hr/>
<b>Net earnings</b>	<b>\$ 8,900,000</b>	<b>\$ 5,100,000</b>
<b>Net earnings per share</b>	<b>\$0.53</b>	<b>\$0.30</b>



**AR48**



Cominco Ltd.  
630 Dorchester Boulevard West  
Montreal 101, Canada

Cominco Ltd.

**Comparative  
Interim  
Financial  
Statements**

for the six months ended  
30 June, 1970

## To The Shareholders

Submitted below are the consolidated statements of earnings and source and application of funds of the Company for the first half of 1970 with comparative statements for the first half of 1969. Coast Copper Company Limited, Pine Point Mines Limited and wholly-owned subsidiaries are consolidated in these statements.

Net earnings improved 23% over those for the same period last year mainly as a result of higher lead and zinc prices which remained firm through the period. Sales volume of metallurgical products was generally higher. The Canadian fertilizer market continued to deteriorate, and in the United States increased volume of sales was offset by lower prices. The contribution to earnings from fertilizer

operations was negligible. The loss resulting from potash was significantly reduced due to the non-recurring start-up expense last year. This operation continues to face a difficult marketing situation and provincial pro-rationing of output.

It is estimated that earnings for the last half of 1970 will not exceed those for the first half of the year. This estimate is based on current economic conditions, as well as the reduction in earnings from all export sales caused by the floating of the Canadian dollar on June 1st, the decrease in the price of lead both in Canada and the United States in early July and increased labour costs.

R. HENDRICKS

1st August, 1970.

President and Chief Executive Officer

## Consolidated Statement of Earnings (subject to year-end audit)

	Six months ended 30 June 1970	1969
	(thousands of dollars)	
Sales of products	\$150,600	\$124,900
Other revenue	2,500	3,100
	<u>153,100</u>	<u>128,000</u>
Earnings before the following items	39,900	29,100
Add:		
Income from investments	1,800	2,300
	<u>41,700</u>	<u>31,400</u>
Deduct:		
Depreciation and depletion	13,800	12,900
Income taxes	8,900	6,600
Minority interest in net earnings of Coast Copper and Pine Point	3,200	2,200
	<u>15,800</u>	<u>9,700</u>
Earnings before extraordinary items	—	3,100
Extraordinary items (See note)		
NET EARNINGS	<u>\$ 15,800</u>	<u>\$ 12,800</u>
Earnings per share before extraordinary items	\$ 0.95	\$ 0.58
Net earnings per share	\$ 0.95	\$ 0.77
Note: Extraordinary items:		
1969: Sale of land	\$ 700,000	
Sale of mining investment	\$2,400,000	

## Consolidated Statement of Source and Application of Funds (subject to year-end audit)

<i>Source of Funds:</i>		
Net earnings for the period	\$ 15,800	\$ 12,800
Add:		
Depreciation and depletion	13,800	12,900
Income taxes not currently payable	2,200	2,800
	<u>31,800</u>	<u>28,500</u>
Decrease in sundry non-current items	600	2,000
	<u>32,400</u>	<u>30,500</u>
<i>Application of Funds:</i>		
Capital expenditures		
Investments	9,800	1,500
Property, plant and equipment, net	9,000	10,000
Minority interest in net retained earnings of Coast Copper and Pine Point	3,900	600
Long-term borrowings, net decrease	1,900	1,600
Dividends	11,700	11,700
	<u>36,300</u>	<u>25,400</u>
Decrease (increase) in working capital	\$ 3,900	\$ (5,100)



## Financial Highlights

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### Total Revenue

1970	\$269,949,000
1969	\$256,279,000

### Capital Expenditures

1970	\$37,652,000
1969	\$26,769,000

### Dividends Declared

1970	\$23,376,000
1969	\$23,376,000

### Dividends per Share

1970	\$1.40
1969	\$1.40

### Net Earnings

1970	\$24,265,000
1969	\$30,282,000*

### Net Earnings per Share

1970	\$1.45
1969	\$1.81*

### Working Capital

1970	\$ 85,610,000
1969	\$105,917,000

### Cash and Marketable Securities

1970	\$14,081,000
1969	\$21,727,000

\*(Restated)

## Production — Ore Reserves — Metal Prices

### LEAD AND ZINC ORE PRODUCTION AND RESERVES

Mine	Production 1970		Production 1969		Reserves 1970		Reserves 1969	
	Ore tons	Lead & Zinc Grade %	Ore tons	Lead & Zinc Grade %	Ore tons	Lead & Zinc tons	Ore tons	Lead & Zinc tons
Sullivan	2,121,000	9.0	2,158,000	9.0	66,000,000	7,200,000	67,400,000	7,400,000
Bluebell	246,000	10.0	231,000	10.2				
H. B.	Not Operated		Not Operated		43,500,000	3,720,000	41,800,000	3,600,000
Pine Point	3,860,000	10.1	3,605,000	10.6				
Pine Point*	93,000	36.0	—	—	13,800,000	1,200,000	14,500,000	1,300,000
Magmont	859,000	11.9	593,000	12.2				

\*Direct Shipping ore

### CANADIAN METAL PRICES (Cents per Pound)

	1970 Dec. 31	1970 Average	1969 Average
Lead	13.5	15.81	15.16
Zinc	15.0	15.32	14.64

### CONTAINED LEAD AND ZINC IN ORE PRODUCED

	1970	1969
Tons	690,000	640,000

### Output of Principal Products

Year	Lead Short Tons	Zinc Short Tons	(1) Ores & concentrates Short Tons	Silver Ozs.	Cadmium Short Tons	(1) Fertilizer Short Tons	(1) Iron & Steel Short Tons
1961	171,833	193,138	495	8,816,141	963	696,286	32,049
1962	152,217	199,393	31,919	6,667,813	1,059	714,335	31,441
1963	155,001	194,159	35,849	6,847,606	1,019	708,548	37,678
1964	151,372	199,011	41,296	7,347,590	945	739,080	83,992
1965	186,484	213,082	109,502	6,415,230	359	754,550	180,889
1966	184,871	221,871	268,057	6,609,110	787	965,435	188,099
1967	187,567	202,015	274,649	5,211,761	657	995,974	200,715
1968	199,258	209,994	238,964	6,936,485	701	920,504	220,379
1969	195,822	225,054	330,944	5,705,130	715	798,680	250,148
1970	219,396	221,600	391,369	6,044,600	630	1,073,511(2)	254,609

(1) Produced for sale.

(2) Includes Hill Chemicals, Inc. from Jan. 1, 1970.



## 65th Annual Report of the Directors

### To the Shareholders:

Consolidated earnings for 1970 before taking into account extraordinary items were \$24.2 million or \$1.44 per share, compared with \$25.8 million (restated) or \$1.54 per share in 1969. Net earnings were \$24.3 million, or \$1.45 per share, in 1970 compared with \$30.3 million (restated) or \$1.81 per share in 1969. Dividends declared in 1970 were unchanged from the two previous years at \$1.40 per share. Total revenue of \$270 million established a new record, although the strength of the floating Canadian dollar since May 31 reduced sales receipts from all exported products by about \$5 million. The consolidated financial statements start at page 9 and a detailed review of activities at page 4.

Average prices of lead and zinc were marginally higher in 1970, but during the latter part of the year zinc prices declined and there was a very significant drop in lead prices. In addition, costs of labour and freight materially increased.

Efforts to control inflation by most industrial countries reduced economic activity and curtailed lead and zinc consumption. World inventories increased to record levels, particularly in the United States, where the major custom smelters initiated price reductions which spread to all world markets. The magnitude and timing of these reductions posed a serious problem for the industry and caused the diversion of considerable tonnage of the Company's metals to the less profitable offshore markets.

At the year end the poor economic conditions were aggravated by the automotive strike in the United States. The Company reduced its production of lead and zinc during the last quarter but notwithstanding the adverse conditions the entire production of both metals in 1970 was sold and earnings from metallurgical operations were only slightly lower than in the previous year.

Because of the slowdown which occurred in the latter part of the year, free world consumption of refined lead rose only 1/2 of 1% to 3.5 million tons. Zinc consumption declined from the 1969 level by 4.2% to 4.4 million tons.

In 1970, 24% of sales of refined lead and zinc produced by the Company at Trail, British Columbia was sold in Canada, compared with 29% in 1969. The remainder of the tonnage sold was exported chiefly to the United States and the United Kingdom.

Fertilizer markets in 1970 were again faced with serious over-supply. Low prices and highly competitive conditions prevailed throughout the year in all fertilizer markets served by the Company and resulted in losses in most sectors of the Company's fertilizer operations.

Production from the Saskatchewan potash property continued to improve during the early part of the year until the flooding of the mine on August 27th, details of which are given in the Review of Activities. Since the flooding, potash sales have been continued as planned using purchased supplies.

Consolidated net capital expenditures amounted to \$37.7 million, and include outlays for modernization of the zinc plant at Trail, for completion of the potash facilities at Vade, Saskatchewan, and for investments in the Valley Copper and Fording projects. Working capital at December 31st amounted to \$86 million, a decrease of \$20 million. This change is accounted for in the Statement of Source and Application of Funds included with the financial statements.

The broad policy objective underlying the exploration

activities of the Company are directed to the maintenance and extension of ore reserves at existing mines, the development of lead and zinc at new locations to take advantage of long-term market opportunities, and the diversification of operations through the discovery of other mineral resources.

In 1970, in fulfillment of these objectives, approximately \$9.0 million was spent on a well diversified program as outlined in the Review of Activities.

Valley Copper Mines Limited (NPL), in which the Company has a 70% interest, reports that the overall feasibility of the Valley Copper project in the interior of British Columbia, based on an operation in the order of 40,000 tons of ore per day, cannot be fully assessed until discussions have been completed with regard to financing and marketing arrangements. The engineering phase of production alternatives was completed by the end of the year.

Negotiations with the Danish Government in connection with the Greenex zinc property in Greenland, leading to an early resumption of exploration, were nearing a satisfactory conclusion at the end of 1970. Construction at the Fording Coal mine in southeastern British Columbia was making good progress. Underground exploration at the Rubiales lead-zinc property in Spain was proceeding in a satisfactory manner.

The Annual General Meeting of Shareholders on April 23, 1970, was informed that Mr. G. H. Baillie and Mr. R. D. Perry were not standing for re-election. Mr. F. S. Burbidge and The Honourable Duff Roblin, P.C., C.C., were elected Directors of the Company to succeed them. The Board's sincere appreciation was expressed for the valuable assistance and advice of both Mr. Baillie and Mr. Perry during their terms of office. It is with deep regret that the Directors record the death of Mr. Baillie on May 8, 1970.

At the meeting of the Board of Directors held immediately following the Shareholders' Meeting on April 23, Mr. W. S. Kirkpatrick was elected Chairman of the Company; Mr. R. Hendricks, President and Chief Executive Officer; Mr. I. D. Sinclair, Vice-President and Mr. D. D. Morris, Executive Vice-President.

At the same meeting of Directors, Mr. A. M. Murray's title was changed from Vice-President, Finance and Treasurer to Vice-President, Finance and Mr. D. L. Hiebert was appointed Treasurer.

The Directors recognize the positive efforts put forth by the employees in all fields of the Company's activities during a difficult year that was burdened with world-wide economic problems. Special appreciation is expressed for the manner in which the employees coped with the problems arising out of the flooding of the potash mine in Saskatchewan.

On behalf of the Board of Directors



President and Chief Executive Officer



Chairman of the Company

Vancouver, British Columbia, 11th March, 1971.

## **Review of Activities:**

*(Figures for 1969 in brackets).*

### **Metals:**

Refined lead production at the smelter at Trail, British Columbia in 1970 was 185,000 (170,000) tons. Higher production rates were achieved until after mid-year when a slackening in demand became evident and production was cut. The increase in production rates was made possible by the replacement of a lead furnace in 1969 which was brought on stream in January, 1970. In February, a new monthly record of 653 tons per day was established for production of lead bullion from two blast furnaces. In addition to the Trail output, the Company's share of lead from the Magmont Mine at Bixby, Missouri amounted to 34,000 (26,000) tons. Refined zinc production at Trail of 222,000 (225,000) tons was slightly below the 1969 production because decreased demand necessitated a cut in production rates near year-end.

Refined silver produced in 1970 was 6.0 (5.7) million ounces of which 60% (54%) came from the Company's mines.

Gold production from Company sources in 1970 amounted to 52,400 (52,300) ounces. Most of the gold was produced at the Con mine at Yellowknife but 14% of the production came from the Coast Copper mine on Vancouver Island, the same as in 1969. At present prices for gold the continued operation of the Con mine is dependent upon the availability of assistance under the Emergency Gold Mining Assistance Act.

Mercury ore produced at the Pinchi Lake mine near Fort St. James, British Columbia was 390,000 (371,000) tons. Approximately 56% of the production was from open pit operations.

Cadmium production at the Trail plants of 630 (715) tons was slightly below the 1969 level as was the production of antimonial lead. Bismuth production was approximately double that of 1969. Indium production of approximately 900,000 (323,000) ounces was almost three times that of 1969. Sales of the foregoing plus mercury, tin and electronic materials totalled \$18.3 (\$19.8) million. This decrease was mainly from price reductions.

At the Company's operations at Kimberley, total production of iron and steel in 1970 was 109,000 (107,000) tons, of which 57,000 (44,000) tons was steel.

The Coast Copper Company's concentrator on northern Vancouver Island treated the copper ore from its Benson Lake and Coast Copper mines and produced 24,000 (15,000) tons of copper concentrate and 46,000 (103,000) tons of magnetite concentrate. Magnetite recovery ceased in September.

### **Chemicals and Fertilizers:**

Total production of fertilizer, in 1970, exclusive of potash but including Hill Chemicals, Inc. production for the first

time, was 1,074,000 (799,000) tons of which Hill Chemicals, Inc. produced 310,000 tons for sale.

Total sales in 1970 of fertilizer produced exclusive of potash were 1,141,000 tons, which include 351,000 tons of ammonia sold by Hill Chemicals and Cominco American Incorporated. The 1969 sales of 771,000 tons did not include sales by Hill Chemicals.

Curtailement of ammonium nitrate and ammonium phosphate production continued through 1970 due to lack of sales. The natural gas ammonia plant at Trail which operated for approximately six months in 1969 did not operate in 1970. The fertilizer plant at Kimberley operated at approximately two thirds of capacity during 1970. Environmental control still necessitates the operation of the chemical and fertilizer plants at Trail and Kimberley at rates sufficient to absorb the sulphur produced by the metallurgical plants.

Cominco's pioneering work in forest fertilization has demonstrated economic advantage to the forest industry through application of chemical fertilizers. A new urea product especially designed for aerial application on timber lands has been successfully developed and is achieving broad market acceptance.

Fertilizer supply in North America in 1970 again exceeded demand and prices continued at a low level. Several production plants remained closed or curtailed their output. The Canadian wheat inventory situation improved significantly about mid-year as a result of increased export sales and implementation of the Federal Government's LIFT program. This should result in some improvement in fertilizer consumption.

The Company's Potash Division operations encountered normal start-up problems in 1969, some of which carried over into 1970. Potash ore treated in the processing plant at the mine site at Vade, Saskatchewan totalled 587,000 tons.

Operations for the first seven months of the year were in accordance with production and sales licences issued by the Potash Conservation Board of the Province of Saskatchewan. Prorationing of production among all potash producers and the establishment of a minimum floor price by the Board resulted in sharply increased Canadian prices compared to the previous year. World potash prices generally followed the Canadian price increase.

On August 27th an unfortunate breach in Number 2 shaft at the Vade mine resulted in flooding of the mine and a complete production shutdown. A rehabilitation program which was making satisfactory progress at year-end had cost \$2.0 million. Water had been pumped out as far as the working level.

Preliminary indications are that the mine has not been seriously damaged structurally and that the mining equipment can be restored.



The Company's potash sales program has been continued since the shutdown through a purchase and resale agreement with another producer in the area and with the approval of the Saskatchewan Potash Conservation Board.

#### **Exploration:**

Exploration for new sources of ore was carried on in seven countries during 1970. The major effort continued to be centered in Canada. In New Brunswick, the Company participated with Anaconda American Brass Limited in bringing the Caribou open pit copper mine into production. The copper concentrator at the mine which has a rated capacity of 1,000 tons per day commenced operation in November 1970. This small but relatively high-grade deposit is expected to have a life of about three years. Underground exploration of the separate large lead-zinc-silver deposit on the property continued. The Company holds a 25% interest in this venture.

Panarctic Oils Limited, in which the Company has a 9% interest, made its second significant discovery of natural gas in October, 1970. Preliminary indications from this well drilled on King Christian Island in the Canadian Arctic suggest that the natural gas reserves in this location could be large. Although the economics of natural gas in the Arctic are unknown at this time, these indications of the occurrence of hydrocarbons is most significant in the search for oil.

Satisfactory arrangements with the Danish Government covering mining and royalty terms for a mineral utilization concession held by Greenex A/S at Marmorilik on the west coast of Greenland were nearing completion at year-end. The concession covers an occurrence of high-grade zinc-lead mineralization on a cliff rising some 2,500 feet above Marmorilik Fiord. On the basis of projections from a limited number of widely spaced diamond drill holes, and from chip samples across the exposed mineralization on the cliff face, reserves of 2.5 million tons averaging 0.8 ounces silver per ton, 4% lead and 17% zinc have been inferred. Further investigation of this deposit can only be done from underground and work involving an adit and subsequent drifting to establish underground drilling stations will commence in 1971. The Company holds a 66% interest in Vestgron Mines Limited, which in turn has the right to acquire a minimum 90% interest in Greenex A/S.

In northern Spain, a shaft was started on the Rubiales mining concessions and will be used to confirm a significant lead-zinc deposit which has been indicated by surface diamond drilling. Lateral development and underground diamond drilling is planned for 1971. These concessions are held under lease by a subsidiary company, Exploracion Minera Internacional (Espana) S.A. in which the Company owns a 63% interest.

Other substantial exploration programs were undertaken in Canada, the United States, Australia, Spain, Mexico and South Africa. Encouraging results have been obtained on a number of properties, and work will continue. Total expenditures on exploration in 1970 amounted to approximately \$9.0 million.

#### **Research:**

Research continued in 1970 on a new hydrometallurgical process for the treatment of copper concentrate which would be pollution-free. Results obtained to date warrant larger scale tests and discussions were in progress at year-end with Sherritt Gordon Mines Ltd. regarding a proposed joint development program. Extensive work was undertaken on a new and promising lead smelting process which has now reached the pilot plant stage.

During 1970 there were record sales and earnings from the production of electronic materials mainly because of an increased demand for high purity arsenic. A new plant to produce this ultra high quality material was completed in Trail.

During the year, the Product Research Centre at Sheridan Park, Ontario, which is concerned with the development of new metal products, successfully brought two products to the commercial stage, a new gravity-castable zinc alloy and Decraloy, the Company's iridescent colored zinc coating. Other developments in lead battery production and sheet zinc usage were actively pursued. Technical assistance to customers received greater emphasis in keeping with the Company's aggressive sales efforts.

Marketing studies were directed to seeking new opportunities for both metal and fertilizer products. Potential markets for various resources including coal were evaluated on an active basis. The Company continues to support industry associations for the development and promotion of new and existing uses of lead and zinc. It is co-operating with the lead industry and with others in an attempt to reduce the many misunderstandings connected with the use of lead in gasoline and the effect of its removal. Scientific evidence supports the conclusion that lead emitted by internal combustion engines is not in itself harmful to the environment. Its removal from gasoline is being advocated by those who are proposing automotive exhaust control systems that are incompatible with lead in gasoline. Entirely satisfactory systems have, however, been developed that do reduce to proposed governmental standards the harmful elements in the exhaust gases of automobiles using leaded gasoline.

#### **New Developments:**

A deep drilling exploration program at the Bluebell mine to test ore possibilities and ground conditions below the existing lowest level of the mine was continued through the

## **Review of Activities:**

*(Figures for 1969 in brackets).*

year. Although areas of good grade sulphide mineralization were encountered these were associated with poor ground conditions and thermal water which, combined, would make the extraction of this material uneconomic at this time. Further exploratory drilling will be undertaken in 1971 to provide additional data.

At the Con mine at Yellowknife, sinking of a deep internal shaft below the present bottom level was completed. Drift development from this shaft is expected to start in early 1971 and permit exploration of the downward extension of a zone which has a good ore potential.

The major program of modernization of zinc production facilities at Trail, begun in 1969, was continued through 1970 and some of the projects in the leaching and melting plants were completed and put into operation. Part of the program, the replacement of eight zinc concentrate suspension roasters by two large fluid bed units, is expected to be completed by the fall of 1971.

A new urea prilling tower at the Calgary operations was completed at year-end.

Technical assistance was provided to Valley Copper Mines Limited (NPL), in connection with various feasibility studies required to establish the viability of bringing into production its very large copper deposit in the Highland Valley area of British Columbia with an average grade estimated at 0.46%.

## **Power:**

Low-water conditions prevailed throughout the Pacific Northwest in 1970 due to a reduced snow pack and minimal precipitation in the summer and fall. This caused load reductions at the Company's plants during both spring and fall and as a result generation from the five Company-owned power plants decreased slightly to 4.06 (4.1) billion kilowatt hours. Surplus interruptible power available during late spring, summer and early fall was sold to British Columbia Hydro and Power Authority and Bonneville Power Administration. Cost of power production increased approximately 4.4% over 1969. The automation of the Waneta Power Plant was completed by year-end and was under remote supervisory control from the power centre.

## **Pollution Control:**

All water-borne effluents from the Company's operations in British Columbia have been registered with the Provincial Pollution Control Branch. Data were also being accumulated for registration of air-borne emissions which are required by the end of 1971. Results of ambient air monitoring in residential areas of Trail and Kimberley were excellent and

well below standards recommended by both the British Columbia Department of Health and the Department of Health, Education and Welfare of the United States.

At Pinchi Lake, the location of the Company's mercury mine, extensive work was done in co-operation with the British Columbia Fish and Wildlife Branch on the effects of mercury on the environment. Particular emphasis was placed on mercury levels in fish tissue. The build-up detected in the aquatic food chain was attributed to the natural occurrence of the mercury ore, cinnabar, and to the residual effect of the wartime mercury mining operation. Existence of this natural occurrence was further borne out by the fact that tissue from fish in other lakes in the Pinchi mineralized zone, in no way connected with the mining operations, showed levels much above existing standards. At the new mining operation, the system of water recovery from tailings, for re-use in the plant which was installed by the Company, has prevented any increase in the natural mercury level of the Pinchi Lake water.

The Company, in line with its policy to control industrial wastes and effluents, continues to investigate and study situations involving possible pollution.

## **Personnel:**

In 1970, 106 (134) employees retired from active service and at the year-end there were 1,738 (1,675) former employees and widows receiving retirement benefits.

The total number of employees of the Company and its subsidiaries at the year-end was 10,157 (10,105). This figure includes 484 employees on construction projects and 72 employees of Hill Chemicals Inc. not included last year. Consequently, the number of employees actually engaged on production and related services is below that at the end of 1969. Labour supply generally improved throughout the year, although turnover in the young age group was high. There was no difficulty in filling requirements for technical and professional staff.

The collective agreement covering hourly paid employees at the Company's principal operations in British Columbia, who are represented by the United Steel Workers of America, was renewed for a two-year period. This agreement, which will expire June 30, 1972, provides for wage increases of approximately 14.8% over the two years. Although the increases were in line with settlements made throughout Canada they far exceed any possible reduction in cost that could be achieved by improved productivity. The agreement includes the introduction of a new Long-term Disability Income Plan for the hourly paid employees.

New retirement income plans for hourly paid employees were also negotiated concurrently with the collective agreement to replace the five-year pension plan agreements which expired December 31, 1970.



A two-year agreement was signed covering employees at the Con mine from August 1, 1970. At the year-end negotiations were in progress between the unions and Western Canada Steel Limited and West Kootenay Power and Light Company, Limited and were due to commence with Pine Point Mines Limited.

### **Principal Subsidiaries Included in Consolidation**

#### *Pine Point Mines Limited:*

Cominco acts as manager and agent for Pine Point Mines Limited which operates a major lead-zinc property at Pine Point, N.W.T. Net earnings for the year were \$20.8 million (\$18.5 million restated). Ore processed was at a record high as shown in the table on page 2. Cost of transportation of ores and concentrates by rail was \$17.8 million (\$15.5 million).

A test stoping program was well underway by year-end to assess the economics of underground mining. Exploration activity was greatly increased in 1970 and included 138,000 feet of diamond drilling and 348 line miles of geophysical work. One orebody of approximately two million tons was found and the increase in contained metal in ore reserves was approximately 82,000 tons.

There was a marked improvement in labour turnover, in part attributable to the 58 homes built at the townsite.

#### *Cominco American Incorporated:*

Cominco American, whose main office is in Spokane, Washington, has a 50/50 interest with Dresser Industries Inc. of Dallas, Texas in the Magmont lead mine at Bixby, Missouri, which it operates under contract. It owns and operates a phosphate mine at Garrison, Montana and an ammonium nitrate plant at Beatrice, Nebraska. Its 73.8% owned subsidiary, Hill Chemicals, Inc., owns and operates an ammonia plant in Borger, Texas. It also produces high purity metal fabrications, which it sells on a world-wide basis, and maintains a fertilizer distribution and sales organization in the United States.

Total sales, net of delivery expenses, by Cominco American and Hill Chemicals, Inc., were U.S. \$66.6 million (\$45.3 million excluding Hill Chemicals).

The Magmont lead mine completed its second full year of operation and attained production levels over those of 1969. Ore treated totalled 859,000 (593,000) tons. Sales of metals and concentrates contributed \$12.6 million (\$9.7 million) U.S. to Cominco American's revenues.

Phosphate rock sales from the Brock mine were about the same as those of the previous year. Production from the mine was reduced from 1969 levels for inventory control.

Cominco American continues to carry on an active mining exploration program throughout the United States.

Sales revenues of U.S. \$43.4 million (\$31.2 million excluding Hill Chemicals) from fertilizer products increased

over 1969 due to more favorable market conditions and minor strengthening of prices in some marketing areas in the United States. The Homestead ammonium nitrate plant at Beatrice, Nebraska operated at near capacity during the year producing 163,000 (154,000) tons. Ammonia production from the Hill Chemicals plant at Borger, Texas at 366,000 tons was slightly above designed capacity.

During 1970, Cominco American increased its ownership in Hill Chemicals, Inc. from 50% to 73.8% and assumed more direct management of the Company.

Sales of electronic materials produced by Cominco American showed continued improvement, exceeding sales of the previous year.

#### *Western Canada Steel Limited:*

Expanded product lines and increased export sales offset the effect of the decline of construction activity in Western Canada and resulted in sales of \$25 million (\$24 million). Near capacity operations of all plants in Vancouver, British Columbia and Calgary, Alberta combined with improvements in operating and marketing procedures favourably affected the Company's earnings. The 50%-owned associate company, Hawaiian Western Steel Limited in Honolulu, experienced another profitable year and good demand for its products.

#### *National Hardware Specialties Limited:*

Due to the prolonged strike in the automobile industry and the slowdown in demand for consumer durables, the level of sales for National Hardware and its subsidiary, Schultz Diecasting Company of Canada Limited, decreased from the previous year. The new plant at Dresden, Ontario, rebuilt following a fire in 1968, demonstrated its worth and National Hardware has expanded its lines in building hardware and sophisticated custom diecastings.

#### *Coast Copper Company, Limited:*

This company owns two underground copper mines and related concentration and surface facilities on northern Vancouver Island at Benson Lake, which are operated under management contract by Cominco.

Sales including inventory valued at market amounted to \$6.3 million (\$4.2 million) and net earnings to \$264,000 (loss of \$32,000). The tonnage of ore treated at the concentrator was 291,000 (281,000) tons at 2.02% (1.47%) copper.

Ore reserves were increased during the year due to development work on the newly-acquired Benson Lake mine.

### **Principal Unconsolidated Subsidiary Companies**

#### *West Kootenay Power and Light Company, Limited:*

This company owns and operates the Upper Bonnington hydroelectric power plant on the Kootenay River and a

## Review of Activities:

(Figures for 1969 in brackets).

distribution system providing public utility services in southern British Columbia. Total sales of firm energy were 778 million (734 million) K.W.H. Capital expenditures of \$1.3 million were required to provide expanded services. Earnings increased to \$857,000 (\$774,000) and dividends amounting to \$619,000 (\$589,000) were paid to Cominco. West Kootenay also operates Cominco's five hydroelectric plants in British Columbia.

### *Pacific Coast Terminals Co. Ltd.:*

The combined tonnage handled through the general cargo docks at New Westminster and the bulk loading terminal at Port Moody, British Columbia, was 3.3 (2.8) million tons. Prior to mid-year, the Port Moody operation was conducted by Pacific Coast Bulk Terminals Ltd., a subsidiary of Pacific Coast Terminals Co. Ltd. The two companies were amalgamated on June 30, 1970. Combined net earnings amounted to \$281,000 (loss of \$142,000).

### *Cominco-Gardner Limited:*

Cominco-Gardner Limited markets Cominco's metallurgical products in the United Kingdom and trades in other metals. The company's sales were at satisfactory levels during the year.

### *Cominco-Gardner GmbH:*

Cominco-Gardner GmbH markets Cominco's metallurgical products and trades in other metals in continental Europe. The company had a successful year.

### *Rycon Mines Limited:*

Cominco mines and treats gold ore from this property in conjunction with its adjoining Con Operations. In 1970, 77,000 (81,000) tons of ore were mined containing 0.64 (0.73) ozs. of gold per ton.

## Affiliated companies

### *The Canada Metal Company Limited:*

This company in which Cominco has a 50% interest manufactures base metals and alloys at plants located in Toronto, Scarborough, Montreal, Winnipeg, Calgary and Vancouver. All units operated profitably with an overall increase of 34% in net earnings. A dividend of \$500,000 was paid to Cominco. Some new product lines were introduced, productive facilities were improved and satisfactory labour relationships were maintained.

### *Fording Coal Limited:*

Cominco has a 40% interest in Fording Coal Limited, and as manager carries out development and construction of Fording's property and facilities, located 40 miles north

of Sparwood in southeastern British Columbia. Construction and preproduction activities included site preparation, pit access and development, processing plant and ancillary buildings and installation of services. This work was undertaken by Cominco's wholly-owned subsidiary, Kootenay Engineering Company Limited.

### *Mitsubishi Cominco Smelting Company Limited:*

This company, in which Cominco has a 45% interest, owns a lead smelter at Naoshima, Japan, which produced 33,600 tons of refined lead, the same as in 1969, entirely from concentrates purchased from Pine Point Mines Limited. This operation continues to show a small profit.

### *Mazak Limited:*

Mazak Limited, in which Cominco has a 50% interest, manufactures and markets zinc alloys for diecasting in the United Kingdom and export markets under the trade name MAZAK. Sales during 1970 were well maintained despite reduced economic activity in the United Kingdom. An active promotion and market development program for zinc diecastings continued during the year.

### *Cominco Binani Zinc Limited:*

This company, in which Cominco has a 40% interest, operates a zinc smelter at Alwaye, Kerala State, India, which produced 14,500 (14,600) tons of refined zinc, 28,000 (23,600) tons of sulphuric acid and 38,000 (37,000) pounds of cadmium. A substantial part of the concentrates used at this smelter were purchased from Pine Point Mines Limited.

Operations continue to be adversely affected by difficult local conditions.



## Consolidated Statement of Earnings Year ended December 31, 1970

(with comparative figures for 1969)

	1970	1969 (* Restated-Note 1)
Sales of products	\$264,483,000	\$250,617,000
Other revenue	5,466,000	5,662,000
	<u>269,949,000</u>	<u>256,279,000</u>
<i>Costs and expenses:</i>		
Inventory of raw materials and products at beginning of year	45,295,000	38,284,000
Production, selling and general expenses	178,263,000	157,979,000
Materials purchased for processing or resale	22,085,000	34,041,000
Interest on long-term debt	4,923,000	3,650,000
	<u>250,566,000</u>	<u>233,954,000</u>
Deduct inventory of raw materials and products at end of year	46,750,000	45,295,000
	<u>203,816,000</u>	<u>188,659,000</u>
	<u>66,133,000</u>	<u>67,620,000</u>
<i>Add:</i>		
Dividends from unconsolidated subsidiary companies (Note 3)	717,000	1,089,000
Income from other investments	3,623,000	3,689,000
	<u>4,340,000</u>	<u>4,778,000</u>
<i>Deduct:</i>		
Depreciation (Note 4)	22,607,000	20,720,000*
Depletion	5,663,000	4,880,000
Amortization of deferred charges	1,584,000	1,274,000
Income taxes, including \$189,000 previously deferred (1969 — \$4,256,000 not currently payable)	9,900,000	12,300,000*
Minority interests in net earnings of consolidated subsidiaries	6,557,000	5,507,000*
Equity in loss of Hill Chemicals, Inc. (Note 1)	—	1,961,000*
	<u>46,311,000</u>	<u>46,642,000*</u>
<b>Earnings before extraordinary items (per share \$1.44, 1969 — \$1.54*)</b>	<b>24,162,000</b>	<b>25,756,000*</b>
<i>Extraordinary items:</i>		
Reduction in income taxes of consolidated subsidiaries, resulting from losses and tax credits of prior years	103,000	1,413,000
Gain on sale of property and investments	—	3,113,000
<b>Net earnings</b>	<b>\$ 24,265,000</b>	<b>\$ 30,282,000*</b>
Net earnings per share	<u><u>\$1.45</u></u>	<u><u>\$1.81*</u></u>

## Consolidated Statement of Retained Earnings Year ended December 31, 1970

(with comparative figures for 1969)

	1970	1969 (* Restated-Note 1)
Amount at beginning of year	\$276,703,000	\$268,920,000
Add net effect of retroactive change in depreciation of Pine Point Mines Limited (Note 4)	—	877,000*
	<u>276,703,000</u>	<u>269,797,000*</u>
Net earnings	24,265,000	30,282,000*
	<u>300,968,000</u>	<u>300,079,000*</u>
Dividends — \$1.40 per share	23,376,000	23,376,000
Amount at end of year	<u><u>\$277,592,000</u></u>	<u><u>\$276,703,000*</u></u>

# Consolidated Balance Sheet at December 31, 1970

(with comparative figures for 1969)

## Assets

	1970	1969 (* Restated-Note 1)
<i>Current Assets:</i>		
Cash	\$ 1,244,000	\$ 5,871,000
Short term investments, at cost	12,837,000	15,856,000
Accounts receivable:		
Trade	41,913,000	51,982,000
Unconsolidated marketing subsidiaries	6,858,000	10,916,000
Other unconsolidated subsidiaries	317,000	519,000
Inventories (Note 6)	61,552,000	58,135,000
Prepaid expenses	5,925,000	4,299,000
	<u>\$130,646,000</u>	<u>\$147,578,000</u>
<i>Investments and Sundry Assets:</i>		
Investments (Note 3)	55,114,000	46,876,000*
Deferred charges (Note 5)	4,312,000	2,210,000
Other (Note 7)	5,402,000	4,128,000
	<u>64,828,000</u>	<u>53,214,000*</u>
<i>Fixed Assets:</i>		
Land, buildings and equipment, at cost less fully depreciated items written off and amounts realized on sales	345,699,000	301,798,000
Less accumulated depreciation (Note 4)	118,061,000	96,506,000*
	<u>227,638,000</u>	<u>205,292,000*</u>
Mining properties and development, at cost less amounts written off	67,462,000	65,092,000
Less accumulated depletion	22,440,000	18,149,000
	<u>45,022,000</u>	<u>46,943,000</u>
	<u>\$468,134,000</u>	<u>\$453,027,000*</u>



**Liabilities and Shareholders' Equity**

Liabilities and Shareholders' Equity	1970		1969 (* Restated-Note 1)	
<i>Current Liabilities:</i>				
Bank advances	\$	3,771,000	\$	7,274,000
Accounts payable and accrued expenses		32,291,000		29,756,000
Payments received in advance on sales contracts		550,000		117,000
Income taxes		2,577,000		2,711,000
Long-term debt due within one year		3,057,000		1,803,000
Minority interest in dividend payable by a subsidiary		2,790,000	\$ 45,036,000	— \$41,661,000
<i>Long-term Debt, including unrealized foreign exchange gain (Note 8)</i>				
		73,832,000		56,810,000
<i>Minority Interests in consolidated subsidiaries</i>				
		17,117,000		23,107,000*
<i>Deferred Income Taxes</i>				
		29,555,000		29,744,000*
<i>Shareholders' Equity</i>				
Capital:				
Authorized — 20,000,000 shares of no par value; issued and fully paid — 16,698,583 shares		25,002,000		25,002,000
Retained earnings		277,592,000	302,594,000	276,703,000* 301,705,000*
<i>Commitments and Contingent Liabilities (Note 11)</i>				
		\$468,134,000		\$453,027,000*

Approved on behalf of the Board:

R. Hendricks	}	Directors
W. S. Kirkpatrick		

# Consolidated Statement of Source and Application of Funds

Year ended December 31, 1970

(with comparative figures for 1969)

## Source:

	1970	1969
		(** Restated - Note 1)
Earnings for year, before extraordinary items	\$ 24,162,000	\$25,756,000*
Add:		
Depreciation	22,607,000	20,720,000*
Depletion	5,663,000	4,880,000
Amortization of deferred charges	1,584,000	1,274,000
Increase (decrease) in deferred income taxes	(189,000)	4,256,000*
Equity in loss of Hill Chemicals, Inc.	—	1,961,000*
Funds from operations	53,827,000	58,847,000*
Proceeds from sale of property and investments	1,700,000	3,813,000
Increase (decrease) in minority interests in consolidated subsidiaries	(6,086,000)	187,000*
Increase (decrease) in working capital resulting from the consolidation of subsidiary	(1,582,000)	1,390,000
	47,859,000	64,237,000

## Application:

Capital expenditures:		
Investments	15,294,000	6,992,000
Land, buildings and equipment	18,839,000	16,199,000
Mining properties and development	3,519,000	3,578,000
Reduction in long-term debt, net	3,142,000	1,601,000
Potash rehabilitation cost (Note 7)	1,989,000	—
Payment of taxes previously deferred	—	3,200,000
Dividends	23,376,000	23,376,000
Other	2,007,000	839,000
	68,166,000	55,785,000
Increase (decrease) in working capital	(20,307,000)	8,452,000
Working capital at beginning of year	105,917,000	97,465,000
Working capital at end of year	\$ 85,610,000	\$105,917,000



## Notes to Financial Statements

### 1. Basis of Presentation:

The financial statements of Cominco Ltd. ("Cominco") are presented in consolidation with those of (1) all subsidiaries in which it holds all the shares and (2) all major partially-owned subsidiaries engaged in the same business as Cominco (Pine Point Mines Limited — 69% owned, Coast Copper Company, Limited — 95% owned and, for the first time in 1970, Hill Chemicals, Inc. — 74% owned). Other subsidiaries have not been included in the consolidation because they have different businesses from those of Cominco or their inclusion would not significantly affect earnings.

To facilitate comparison, the 1969 figures in the consolidated statement of earnings have been restated to include Cominco's equity in the loss of Hill Chemicals, Inc. for that year, throughout which it was a 50% owned company. As explained in Note 4, the 1969 figures have also been restated to reflect the change in depreciation of Pine Point Mines Limited.

### 2. Foreign Exchange Translation:

The foreign currency assets and liabilities of Cominco and its domestic subsidiaries have been translated into Canadian dollars at current rates of exchange. No loss resulted when the Canadian dollar was freed on June 1, 1970 because the foreign exchange position had been protected. In these financial statements, current assets and current liabilities of foreign subsidiaries have been translated at current rates and the resulting adjustments, which are not material, have been taken into earnings. Fixed assets of foreign subsidiaries have been translated at the rate in effect at the time of their acquisition. As set out in Note 8, the long-term debt of these subsidiaries has been translated at the rate in effect on December 31, 1970 and the resulting unrealized exchange gain of \$2,098,000 is carried in the balance sheet.

### 3. Investments:

Cominco's equity in the aggregate net earnings of unconsolidated

subsidiaries amounted to \$1,186,000 for the year (1969 — \$771,000) compared with dividends of \$717,000 (1969 — \$1,089,000) received from them. Cominco has not taken into these financial statements its equity of \$2,417,000 in the net accumulated undistributed earnings of unconsolidated subsidiaries.

Cominco's equity in the aggregate net earnings of 50% owned companies amounted to \$922,000 for the year (1969 — \$884,000, excluding Hill Chemicals, Inc. as explained in Note 1) compared with dividends of \$606,000 (1969 — \$803,000) received from them. Cominco has not taken into these financial statements its equity of \$1,047,000 in the net accumulated undistributed earnings of these companies.

Particulars of investments are as follows:

	1970	1969 (* Restated — Note 1)
Unconsolidated subsidiary companies		
Shares, at cost	\$21,292,000	\$20,278,000
Advances	11,772,000	4,574,000
50% owned companies		
Shares, at cost	8,512,000	10,784,000*
Debentures, at cost, and advances	1,846,000	5,479,000
Other companies		
Shares, at cost less amounts written off and amounts realized on sales		
Having a quoted market value (quoted market value \$392,000)	1,083,000	1,071,000
Having no quoted market value	14,228,000	7,007,000
Income debentures	—	1,000,000
Advances	3,919,000	3,140,000
	62,652,000	53,333,000*
Less: accumulated provision for depletion of mineral investments	7,538,000	6,457,000
	<u>\$55,114,000</u>	<u>\$46,876,000*</u>

#### 4. Depreciation:

The companies compute depreciation on each year's net expenditures evenly over a period of years until these expenditures have been fully depreciated. At that time, the practice generally is to write off the recorded cost against the depreciation accumulation, so that only costs not yet fully depreciated are carried in the balance sheet. Cominco expenditures are depreciated over thirteen years except for the potash project which is depreciated over twenty years. Depreciation on the latter has been temporarily suspended during rehabilitation of the mine (see Note 7).

Studies during 1970 by Pine Point Mines Limited of its depreciation rates led that company to change to a thirteen year write off from the previous basis of depreciating all facilities relating to the original mine and to the new Sphinx mine over the estimated lives of those mines. Continuing exploration and development has added substantially to the original ore reserves and the revised basis provides for a more realistic matching of costs and revenues. As a result, net earnings for 1970 have increased by \$477,000; reported earnings for 1969 have been restated to facilitate comparison and have been increased by \$405,000. The net credit of \$877,000 to retained earnings in 1969 reflects the retroactive application of the revised practice from commencement of the Pine Point operations to the end of 1968.

#### 5. Deferred Charges:

Deferred charges consist of the following unamortized amounts:

	1970	1969
Office move to Vancouver	\$1,352,000	—
Hill Chemicals, Inc. start-up expense	1,344,000	—
Mine preparation	1,057,000	1,492,000
Lease of Calgary steel facilities	277,000	370,000
Other	282,000	348,000
	<u>\$4,312,000</u>	<u>\$2,210,000</u>

#### 6. Inventories:

	1970	1969
Raw materials and products	\$46,750,000	\$45,295,000
Stores and materials	14,802,000	12,840,000
	<u>\$61,552,000</u>	<u>\$58,135,000</u>

Raw materials and products are valued generally at the lower of cost (determined on the monthly average method) or net realizable value.

Stores and materials are valued at cost less appropriate allowances for obsolescence.

#### 7. Saskatchewan Potash Mine:

On August 27, 1970, a water break-through occurred in one of the

shafts. The mine was flooded and all operations had to be shut down. The extent of the loss or damage cannot be assessed accurately at this time. De-watering of the mine and other rehabilitation work is continuing. Legal counsel have advised that in their opinion there are good grounds for establishing liability against the contractors. Accordingly, the cost of \$1,989,000 accumulated for this work to December 31, 1970, is included in "Investments and Sundry Assets, Other" in the balance sheet.

#### 8. Long-Term Debt, Including Unrealized Foreign Exchange Gain:

	1970	1969
Long-term debt of Cominco and consolidated Canadian subsidiaries, payable in Canadian funds:		
6¼ % Notes payable to an affiliated company, due May 1, 1972	\$20,000,000	\$20,000,000
6½ % Series A Notes due May 15, 1972	20,000,000	20,000,000
Sundry, including \$840,000 first mortgage sinking fund bonds of a subsidiary	1,370,000	1,591,000
	<u>41,370,000</u>	<u>41,591,000</u>
Less portion due within one year	197,000	197,000
	<u>41,173,000</u>	<u>41,394,000</u>
Long-term debt of consolidated subsidiaries of Cominco, payable in U.S. funds and translated to Canadian equivalent at current exchange rate:		
Cominco American Incorporated:		
5½ % Mortgage notes (\$7,600,000 U.S.), due January 1, 1980, maturing \$800,000 U.S. annually	7,681,000	8,993,000
6¾ % Promissory notes (\$6,800,000 U.S.), due January 1, 1980, maturing \$700,000 annually	6,872,000	8,029,000
Hill Chemicals, Inc.:		
7 % Mortgage notes (\$18,670,000 U.S.), due September 1, 1984, maturing \$665,000 U.S. semi-annually	18,868,000	—
	<u>33,421,000</u>	<u>17,022,000</u>
Less portion due within one year	2,860,000	1,606,000
	<u>30,561,000</u>	<u>15,416,000</u>
	<u>71,734,000</u>	<u>56,810,000</u>
Unrealized gain from reduction during 1970 in the current exchange rate used for translating debt payable in U.S. funds into the Canadian dollar equivalent	2,098,000	—
	<u>\$73,832,000</u>	<u>\$56,810,000</u>



## 9. Pensions:

At December 31, 1970 marketable investments with a current value of approximately \$43,219,000 and mortgages with a face value of approximately \$7,246,000 were held by trustees under Cominco's pension arrangements. Actuarial estimates of these arrangements made to September 1, 1968 indicate an unfunded cost of \$10,200,000 for past service at that date; approximately \$5,300,000 is being funded over 23 years starting in 1968. The cost of current service is being met currently. To keep these funding costs at realistic levels, the retirement income plan for Cominco salaried employees was revised to relate retirement benefits to final salary in the twelve months ending December 31, 1975 or on retirement, whichever first occurs, with the intention that the 1975 date will be extended periodically. In the view of the actuaries and of the fund managers the payments which are being made achieved adequate funding of retirement benefits and meet statutory funding requirements which apply to a registered pension plan included in the arrangements. The consolidated earnings of Cominco have been charged with provisions which reflect the actuarial estimates of the expense related to both past and current service.

## 10. Directors' and Officers' Remuneration:

Production, selling and general expenses include total remuneration of \$70,000 to fourteen (all) directors and \$851,000 to fifteen (all) officers. There were four officers who were also directors.

## 11. Commitments and Contingent Liabilities:

An amendment in October, 1969, to the Canadian Income Tax Regulations could be interpreted by taxation officials in a manner

which would materially reduce the tax depletion allowances for Cominco and Pine Point Mines Limited for 1969 and 1970 because these companies are associated with other subsidiaries of Canadian Pacific Investments Limited. Cominco has initiated discussions with the Federal Government to remove the possibility of any such additional tax levy because it is convinced that a reduction in depletion allowances for Cominco and Pine Point Mines Limited is not intended and would be grossly inequitable, especially to the large body of minority shareholders of these companies. Should any such tax be assessed against the companies, their counsel advises that there are grounds for defence in the courts. No provision has been made in these financial statements for the contingent liability for these taxes which, if levied, would reduce the consolidated earnings of Cominco by an estimated maximum amount of \$1,200,000 for 1969 and \$1,100,000 for 1970.

Sundry guarantees, commitments and claims at December 31, 1970 are estimated at \$6,000,000.

Cominco has undertaken to guarantee up to an amount of \$24,000,000 U.S. bank loans to Fording Coal Limited, in which company Cominco holds a 40% equity interest.

Under a throughput agreement for the transmission of ammonia, Hill Chemicals, Inc. has undertaken to pay \$2,300,000 U.S. per year until 1988.

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## Auditors' Report to the Shareholders

We have examined the consolidated balance sheet of Cominco Ltd. and subsidiaries as at December 31, 1970 and the consolidated statements of earnings, retained earnings and source and application of funds for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion these consolidated financial statements present fairly the financial position of the companies as at December 31, 1970 and the results of their operations and the source and application of their funds for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year, except for the change in accounting practice explained in Note 4, with which change we concur.

Vancouver, B.C., February 22, 1971

THORNE, GUNN, HELLIWELL & CHRISTENSON,  
*Chartered Accountants*

## Consolidated Ten-Year Summary

(all dollar amounts in millions, except per share figures)

(all prior years have been restated to a basis comparable with the current year, except for extraordinary items as noted below)

	1970	1969	1968
<b>Earnings</b>			
Sales of all products	\$264.5	\$250.6	\$241.3
Other revenue	5.4	5.7	5.5
Cost of sales	203.8	188.7	173.5
Earnings from operations	66.1	67.6	73.3
Income from investments	4.3	4.8	5.1
Provisions for depreciation, depletion and amortization	29.8	26.8	21.7
Provision for income taxes	9.9	12.3	17.0
Minority interest in net earnings of consolidated subsidiaries	6.5	5.5	7.9
Equity in loss of Hill Chemicals, Inc.	—	2.0	—
Extraordinary items†	.1	4.5	2.5
Net earnings	24.3	30.3	34.3
Net earnings per share	1.45	1.81	2.05
Dividends declared	23.4	23.4	23.4
Dividends declared per share	1.40	1.40	1.40
Retained earnings for the year	.9	6.9	10.9
<b>Financial position</b>			
Cash and marketable securities	\$ 14.1	\$ 21.7	\$ 29.4
Inventories of raw materials and products	46.8	45.3	38.3
Working capital	85.6	105.9	97.5
Investments and sundry assets	64.8	55.2	50.8
Fixed assets – net	272.7	252.3	257.5
Total assets	468.1	455.0	445.5
Long-term debt	73.8	56.8	58.4
Minority interest in consolidated subsidiaries	17.1	23.0	22.3
Deferred income taxes	29.6	29.7	30.1
Shareholders' equity	302.6	301.8	294.9
<b>Other Statistics</b>			
Capital expenditures	37.7	\$ 26.8	\$ 56.4
Number of shares outstanding at year-end	16,698,583	16,698,583	16,698,583
Number of shareholders at last record date	39,110*	39,406	41,742
Number of employees at year-end including subsidiaries	10,157	10,105	9,439

\*94% of the shareholders were Canadian registrants and hold 96% of the shares issued.

†Charged or credited to retained earnings prior to 1968.



1967	1966	1965	1964	1963	1962	1961
\$217.0	\$224.6	\$211.2	\$170.0	\$140.3	\$131.1	\$124.4
4.5	4.2	4.5	4.3	3.5	2.8	2.4
148.7	144.5	127.7	103.9	90.9	89.0	85.4
72.8	84.3	88.0	70.4	52.9	44.9	41.4
4.7	4.6	6.9	5.1	4.8	3.8	4.3
18.6	15.9	13.7	11.9	11.0	11.1	10.3
10.1	14.6	22.9	24.1	16.9	14.4	14.0
10.1	8.8	4.4	(.1)	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
38.7	49.6	53.9	39.6	29.8	23.2	21.4
2.32	2.97	3.23	2.37	1.82	1.42	1.31
25.0	30.0	30.0	26.5	21.3	18.0	16.4
1.50	1.80	1.80	1.60	1.30	1.10	1.00
13.7	19.6	23.9	13.1	8.5	5.2	5.0
\$ 46.1	\$ 26.9	\$ 35.1	\$ 64.8	\$ 72.4	\$ 71.9	\$ 63.3
45.9	43.9	40.1	32.5	26.7	27.8	30.4
113.2	86.2	79.4	97.3	101.1	103.1	100.1
47.1	35.0	29.8	13.0	18.9	12.3	11.6
224.8	195.3	147.3	112.1	73.9	68.7	67.1
431.7	357.8	300.7	261.7	226.0	212.8	204.4
59.5	14.3	11.7	6.5	—	—	—
20.7	17.7	4.9	0.6	—	—	—
21.3	16.4	6.1	5.5	1.5	—	—
283.7	268.0	233.8	209.9	192.5	184.0	178.8
\$ 58.8	\$ 66.0	\$ 64.4	\$ 38.0	\$ 22.7	\$ 13.1	\$ 10.9
16,688,155	16,688,155	16,688,155	16,688,155	16,381,645	16,381,645	16,381,645
43,198	43,232	39,066	35,712	35,218	35,805	34,234
9,896	10,145	9,965	9,714	8,356	8,073	8,103

## Principal Active Subsidiary and Affiliated Companies

### INCLUDED IN CONSOLIDATION

	% owned		Head Office
Coast Copper Company, Limited	95%	J. H. Salter, <i>President</i>	Trail, British Columbia
Cominco American Incorporated	100%	J. C. MacLean, <i>President</i>	W. 818 Riverside Avenue, Spokane, Washington 99201 U.S.A.
Cominco Australian Pty. Ltd.	100%	J. K. Connor, <i>Secretary</i>	22 Bridge Street Sydney, Australia
National Hardware Specialties Limited	100%	D. G. McGorman, <i>President</i>	Dresden, Ontario (P.O. Box 250)
Pine Point Mines Limited	69%	D. D. Morris, <i>President</i>	Trail, British Columbia
Western Canada Steel Limited	100%	M. C. D. Hobbs, <i>President</i>	450 S.E. Marine Drive, Vancouver 15, British Columbia

### UNCONSOLIDATED

Cominco-Gardner GmbH	50.03%*	Hans von Mejer, <i>Managing Director</i>	Corneliusstrasse 36, Dusseldorf, West Germany
Cominco-Gardner Limited	52%	D. M. Silver, <i>Managing Director</i>	4 Coleman Street, London, E.C.2, England
Exploracion Minera Internacional (Espana) S.A.	63%	R. Sanchez Jimenez, <i>Chairman</i>	85 Goya, Madrid, Spain
Pacific Coast Terminals Co. Ltd.	78%	E. A. Mitchell, <i>President</i>	New Westminster, British Columbia (P.O. Box 697)
Rycon Mines Limited	76%*	R. P. Douglas, <i>President</i>	Yellowknife, N.W.T.
Valley Copper Mines Limited (N.P.L.)	70%	R. J. Armstrong, <i>President</i>	Trail, British Columbia
Vestgron Mines Limited	66%	R. J. Armstrong, <i>President</i>	Trail, British Columbia
West Kootenay Power and Light Company, Limited	100% Common 25% Preferred	W. K. Gwyer, <i>President</i>	1335 Cedar Avenue, Trail, British Columbia

\*Direct and indirect holdings

### AFFILIATED

Cominco Binani Zinc Limited	40%	G. Binani, <i>Chairman</i>	38 Strand Road Calcutta 1, India
Fording Coal Limited	40%	R. M. Porter, <i>President</i>	Trail, British Columbia
Mazak Limited	50%	G. P. Holloway, <i>Managing Director</i>	1 Redcliff Street Bristol 1, England (P.O. Box 19)
Mitsubishi Cominco Smelting Company Limited	45%	Takuhei Oishi, <i>President</i>	6, 1-chome, Ohte-machi, Chiyodaku, Tokyo, Japan
The Canada Metal Company Limited	50%	Carleton Smith, <i>President</i>	721 Eastern Avenue Toronto 8, Ontario





- |                        |                     |                               |
|------------------------|---------------------|-------------------------------|
| 1. Montreal Office     | 9. Trail            | 17. Hermosillo (Suaqui Verde) |
| 2. Vancouver Office    | 10. Kimberley       | 18. Montana Phosphate         |
| 3. Pine Point          | 11. Spokane Office  | 19. Rubiales                  |
| 4. Yellowknife         | 12. Minago          | 20. Johannesburg Office       |
| 5. Bathurst Norsemimes | 13. Toronto Office  | 21. Adelaide Office           |
| 6. Bankeno             | 14. Caribou         | 22. Kalgoorlie (Nickel Belt)  |
| 7. Panarctic Oil       | 15. Cincinnati Arch | 23. Vade                      |
| 8. Greenex             | 16. Magmont         | 24. Pinchi                    |

**Cominco Ltd.** Head Office: 630 Dorchester Boulevard West, Montreal 101, Canada  
Executive Office: 1199 West Pender St., Vancouver 1, British Columbia, Canada

## Directors

\*W. J. BENNETT, *President*  
Iron Ore Company of Canada, Montreal

H. C. BENTALL, *President*  
Dominion Construction Co. Ltd., Vancouver

F. S. BURBIDGE, *Vice-President, Marketing & Sales*  
Canadian Pacific Railway Company, Montreal

\*N. R. CRUMP, *Chairman of the Company*  
Canadian Pacific Railway Company, Montreal

G. A. HART, M.B.E., *Chairman of the Board*  
Bank of Montreal, Montreal

\*R. HENDRICKS, *President and Chief Executive Officer*  
Cominco Ltd., Vancouver

\*W. S. KIRKPATRICK, *Chairman of the Company*  
Cominco Ltd., Montreal

R. A. MacKIMMIE, Q.C., *Partner*,  
law firm of MacKimmie Matthews, Calgary

\*D. R. McMASTER, Q.C., *Partner*,  
law firm of McMaster, Meighen, Minnion, Patch & Cordeau,  
Montreal

\*D. D. MORRIS, *Executive Vice-President*  
Cominco Ltd., Vancouver

S. E. NIXON, *Vice-Chairman*  
Dominion Securities Corporation Limited,  
Montreal

THE HONOURABLE DUFF ROBLIN, P.C., C.C., *President*  
Canadian Pacific Investments Limited, Montreal

\*I. D. SINCLAIR, Q.C., *President and Chief Executive Officer*  
Canadian Pacific Railway Company, Montreal

THE HONOURABLE JAMES SINCLAIR, P.C., *Deputy Chairman*  
Canada Cement Lafarge Ltd., Vancouver

\*Member of Executive Committee

## Officers

W. S. KIRKPATRICK, *Chairman of the Company*

R. HENDRICKS, *President and Chief Executive Officer*

I. D. SINCLAIR, Q.C., *Vice-President*

D. D. MORRIS, *Executive Vice-President*

R. J. ARMSTRONG, *Vice-President, Exploration*

F. E. BURNET, *Vice-President at Vancouver*

J. F. M. DOUGLAS, *Vice-President, Corporate Services*

H. T. FARGEY, *Vice-President, Marketing*

G. H. D. HOBBS, *Vice-President, Pacific Region*

A. M. MURRAY, *Vice-President, Finance*

J. H. SALTER, *Vice-President, Operations*

S. M. ROTHMAN, *General Manager, Operations*

C. H. B. FRERE, *General Counsel and Secretary*

D. L. HIEBERT, *Treasurer*

H. T. OMMANNEY, *Comptroller*

## Transfer Agents

The Royal Trust Company,  
Montreal, Vancouver, Saint John, N.B., Calgary

Canada Permanent Trust Company, Toronto

Bank of Montreal Trust Company, New York

## Registrars

Montreal Trust Company,  
Montreal, Vancouver, Saint John, N.B., Calgary

Crown Trust Company, Toronto

Chemical Bank, New York



## Products

### Metals

Lead, Zinc, Silver, Bismuth, Cadmium,  
Mercury, Indium, Gold, Antimonial Lead,  
Zinc Dust, Pig Iron, Steel

### Concentrates

Zinc, Lead, Copper, Tin

### High Purity Metals (99.999% and 99.9999% pure)

Aluminum, Antimony, Arsenic, Bismuth, Cadmium, Copper,  
Gallium, Gold, Indium, Lead, Silver, Sulphur, Tin, Tellurium,  
Thallium, Zinc

### Fabricated Metal Products

Zinc Die Castings, Zinc Extrusions, Zinc Forgings, Cadmium  
and Zinc Plating Anodes, Zinc Anodes for Cathodic  
Protection, Steel Fasteners, Light and Medium Structural  
Steel Products, Continuously Cast Lead Sheet (SHEALD),  
Colored Zinc Coating (DECRALOY)

### Electronic Materials

Fabricated Forms of High Purity Metals,  
Compound Semiconductors

### Fertilizers and Chemicals

Ammonium Sulphate, Ammonium Nitrate, Urea,  
Anhydrous and Aqua Ammonia, Nitrogen Solutions,  
Ammonium Phosphates, Ammonium Nitrate-Phosphates,  
Complete Fertilizers, Ammonium Phosphate Solutions,  
Phosphoric Acid, Nitrogen-Sulphur Solutions, Zinc Fertilizer  
Compound, Sulphuric Acid, Sulphur Dioxide, Hydrofluosilicic  
Acid, Nitric Acid, Iron Calcine

### Muriate of Potash

Granular, Coarse, Standard,  
Special Standard, White Soluble

**TADANAC BRAND**

**COMINCO BRAND**

**ELEPHANT BRAND**

**SHEALD**

**DECRALOY**

are registered  
trade marks of the Company

